

Quarterly Report – Public Page

Date of Report: 5th Quarterly Report-October 30, 2019

Contract Number: 693JK31810001

Prepared for: DOT

Project Title: Improvements to Pipeline Assessment Methods and Models to Reduce Variance

Prepared by: GTI

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For quarterly period ending: October 30, 2019

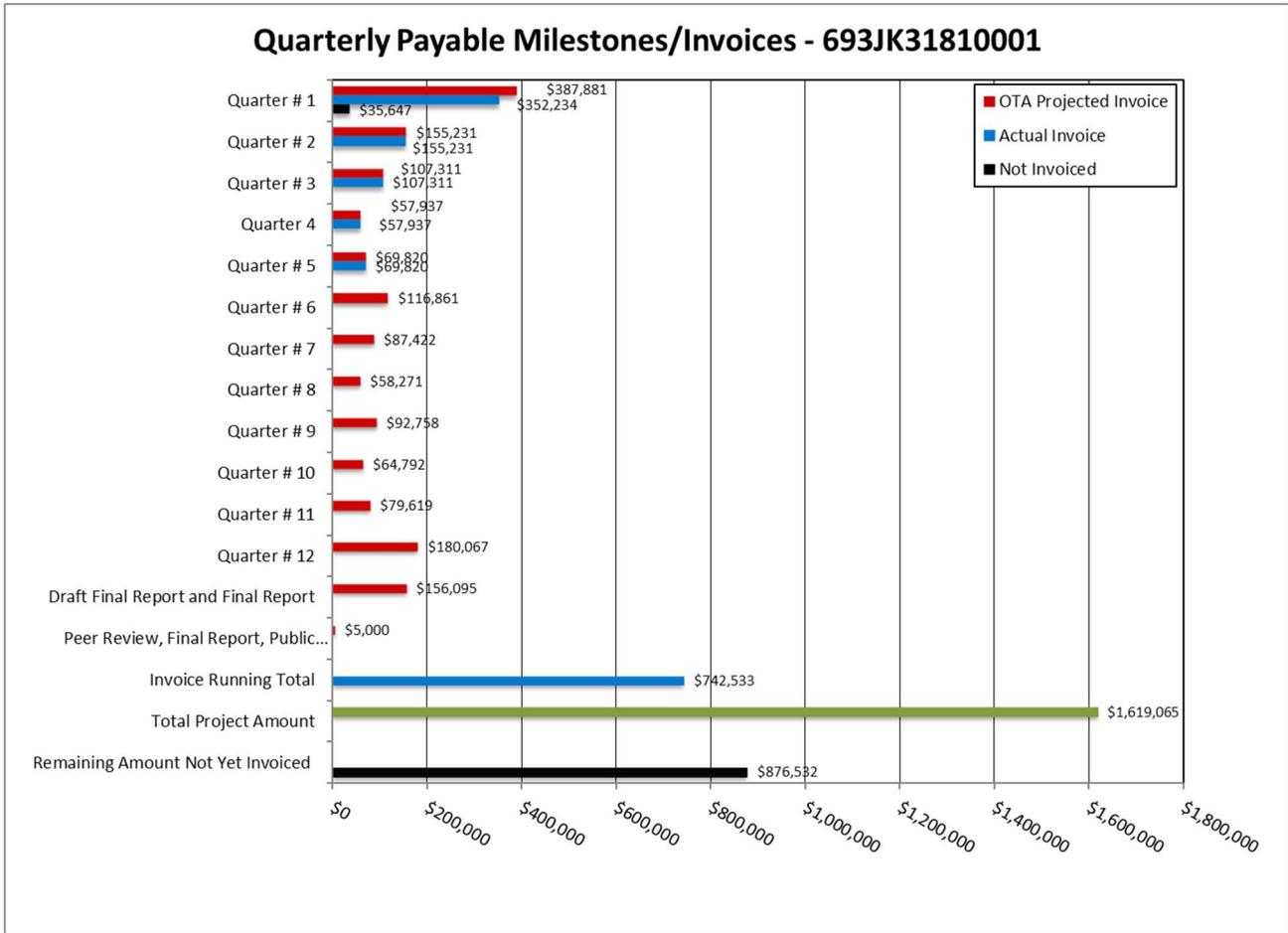
1: Items Completed During this Quarterly Period:

<i>Item #</i>	<i>Task #</i>	<i>Activity/Deliverable</i>	<i>Title</i>	<i>Federal Cost</i>	<i>Cost Share</i>
37	3.2.1.1	Uncertainty Reduction	Probabilistic Fracture Assessment Phase 3 Report	17,841.00	0
38	4.2.1	Structural FEM Study	FEM DoE Phase 3 Report	5,032.00	0
39	5.2.1.1	FEM Simulation of NDE Signal Responses	Model-based Framework Phase 3 Report	20,501.00	0
40	6.1.1	Data analysis	2nd Data Analysis Methods Progress Report	22,526.00	0
41	9.1.3	Project Management	5th Quarterly Report	3,920.00	0
31	3.2.1.1	Uncertainty Reduction	Probabilistic Fracture Assessment Phase 2 Report	10,000	0
33	5.1.1.4	FEM Simulation of NDE Signal Responses	Multi-Modal NDE Sensing Techniques Phase 4 Report	10,000	0

2: Items Not-Completed During this Quarterly Period:

<i>Item #</i>	<i>Task #</i>	<i>Activity/Deliverable</i>	<i>Title</i>	<i>Federal Cost</i>	<i>Cost Share</i>
NA	NA	NA	NA	NA	NA

3: Project Financial Tracking During this Quarterly Period:



4: Project Technical Status –

The project technical work is progressing as planned. To date valuable insights have been gained from setting up the modeling frameworks at GTI, MSU and ASU. The project team now has a solid grasp of the modeling challenges, 3-D FEM simulations of the threat interactions and several NDE methods are now functioning correctly. The three teams are actively discussing how to develop frameworks for fully quantifying uncertainties and approaches to reduce them.

A TAP meeting was held on September 5th. Progress to date was discussed and valuable feedback was obtained from the team members. Specifically, it was learned that the interaction of cracks with other defects was of greatest interest (circumferential cracks with corrosion was an interaction of interest). This feedback has already been acted on in the fifth quarter and the data analysis task focused on this specific interaction.

A follow-up TAP meeting will be scheduled for January 2020 where we will report on how we have included the feedback from the first meeting and solicit further guidance from the group.

5: Project Schedule –

All deliverables were completed this quarter. The missing deliverables from the fourth quarter were completed.

There are two outstanding deliverables from the first quarter:

Item # 6, Task # 2.5, Define Project Database and Workflows, Define the Data related Workflows

Item # 7, Task # 2.5, Define Project Database and Workflows, Implement the Database System in the Cloud

Item # 7 is in the process of being implemented by GTI and should be completed in the sixth quarter.

The completion of the cloud framework will allow Item # 6 to be completed